WELCOME TO THE MEETING

We will begin shortly!

- Please turn your video off and mute your microphones to prevent any lagging during the presentation.

- We will be taking questions at the end of the presentation – If you would rather type your message, please use the chat at any time and we will include those questions in our discussion at the end.

If you are a Public Official, please introduce yourself in the chat!

This meeting will be recorded and the slides will be available on the City of Rio Rancho Website at https://rrnm.gov/ Recording will be available by request.
IDALIA ROAD PHASE I-A/B STUDY
CN A300201
PUBLIC MEETING NO. 2

May 4th, 2022
IDALIA ROAD PHASE I-A/B STUDY

• Study Team
• City of Rio Rancho
  • BJ Gottlieb – Director of Public Works & City Engineer
  • Jamie Marrufo – Deputy Director of Public Works
  • Arnell Friedt – Project Manager

• Consultant Team
  • Andrew E. Gallegos – WHPacific/NV5 Project Manager
  • Adam Miera – WHPacific/NV5 Traffic Engineer
  • Kevin Rucker – WHPacific/NV5 Roadway Designer
  • Sheila Johnson - WHPacific/NV5 Drainage Manager
  • Austin Schmidt - WHPacific/NV5 Drainage Engineer
  • Eric Johnson – NV5 Environmental Lead
  • Mikaela Buscher – NV5 Biologist & NEPA Analyst
IDALIA ROAD PHASE I-A/B STUDY

NMDOT Study Procedures

We are Here
May 4th, 2022
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A EVALUATION

MEETING AGENDA

1. Existing Conditions Recap
2. Purpose and Need Statement
3. Alternative Review Process
4. Project Alternatives
   1. Roadway
   2. Access
   3. Drainage
5. Project Schedule
6. Questions and Answer

Loma Colorado Blvd. intersection
US 491 ALIGNMENT STUDY

PURPOSE AND NEED

PURPOSE AND NEED STATEMENT

“The purpose of this project is to correct the physical deficiencies, improve safety, accommodate future traffic demands, and provide multi-modal accessibility within the Idalia Road study corridor. This includes updating intersection geometry for improved sight distance at intersections, providing connectivity for multi-modal users, and upgrading the drainage facilities as required to accommodate the full buildout of the typical section for the corridor.”

The Needs Include The Following:

STUDY NEEDS:

• Roadway Geometry Deficiencies – Is a Need
  • Intersection Geometry
  • Curb Ramps at Intersection and Sidewalks
  • Roadway conditions (pavement, curb, sidewalk)
  • Drainage deficiencies

• Safety – Is a Need
  • Access Management in corridor and property access
  • Pedestrian crossings and accessibility

• System Connectivity – Is a Need
  • Pedestrian and Bicycle Accessibility (Multi-modal & Access)
  • Safe Crossings at intersections (Cross-Walks and locations to cross)
IDALIA ROAD PHASE I-A/B STUDY
EXISTING CONDITIONS RECAP

Roadway Characteristics:
Length of Project: 3.75 Miles
2-Lane Undivided Road
Classification: Major Urban Arterial
• Existing Conditions:
  • Roadway conditions, no sidewalk or curb and gutter
  • Drainage issues at crossing structures and erosion adjacent to roadway
  • Travel Demand and Congestion
  • Safety and Access Management
  • Pedestrian accessibility and crossings
  • Speeding
  • Noise
**IDALIA ROAD PHASE I-A/B STUDY**

**PHASE I-A EVALUATION**

### Alternative Evaluation Matrix

- The alternatives screening narrows the list of alternatives that will be carried into the Detailed Evaluation Phase (Phase I-B).

- **Four Primary Steps:**
  - Selection of Evaluation Criteria:
    - Responsiveness to the Purpose and Need
    - Operational Performance
    - Safety
    - Right-of-Way Impacts
    - Construction Costs, etc.
  - Selection of Scoring system for each Criteria
  - Scoring and Ranking of Each Alternative
  - Determination of Alternative to Proceed to Phase I-B

<table>
<thead>
<tr>
<th>EVALUATION FACTOR</th>
<th>Broadmoor Blvd. Intersection Alternative 3</th>
<th>Luna Colorado Blvd. Intersection Alternative 2</th>
<th>Luna Colorado Blvd. Intersection Alternative 1</th>
<th>Kim Rd. Intersection Alternative 3</th>
<th>Kim Rd. Intersection Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIR IMPACTS 1</td>
<td>Hwy impacts due to additional area required</td>
<td>Hwy impacts due to additional area required</td>
<td>Hwy impacts due to additional area required</td>
<td>Hwy impacts due to additional area required</td>
<td>Hwy impacts due to additional area required</td>
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<td>Public involvement has not occurred yet.</td>
<td>Public involvement has not occurred yet.</td>
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<td>60 AC. Required</td>
<td>60 AC. Required</td>
<td>60 AC. Required</td>
<td>60 AC. Required</td>
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<td>CONSTRUCTION COSTS</td>
<td>Cost for intersection</td>
<td>Cost for intersection</td>
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<td>Cost for intersection</td>
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<td>UTILITIES</td>
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<td>Utilities may impact utilities negatively</td>
<td>Utilities may impact utilities negatively</td>
<td>Utilities may impact utilities negatively</td>
<td>Utilities may impact utilities negatively</td>
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<td>3</td>
<td>3</td>
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<td>3</td>
</tr>
</tbody>
</table>

**SAMPLE EVALUATION MATRIX**
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

- Proposed Roadway Typical Sections

- Roadway Characteristics
  - Urban Minor Arterial Roadway Classification
  - 2-11’ Driving Lanes (1 in each direction) w/ curb and gutter
  - 6’ bicycle lanes
  - 6’ sidewalks w/ landscape buffers
  - 80’ Wide Existing Right-of-way
  - 40 mph Posted Speed Limit
  - New Turning Lanes at city roads and major intersections
  - Improved vertical geometry for drainage conveyance

Typical Roadway Section

Idalia Rd. (east of Iris Rd.)
Intersection Alternative 1: No-Build

- **Roadway Issues**
  - 2-Lane Roadway with no curb and gutter or bicycle lanes
  - No medians for left turn movements
  - No access control

- **Multimodal Accessibility**
  - Missing Sidewalk and pedestrian access
  - Variable-Width Shoulders
  - Some Crossing opportunities at signalized intersections

- **Other Features**
  - Some Street lighting
  - Power Poles within clear zone
  - Signalized Intersections at Broadmoor Blvd. and Loma Colorado Blvd.

*Do Not Advance into Phase I-B*
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Broadmoor Blvd Intersection
Alternative 2 – Signalized Intersection

• Benefits
  • Upgraded intersection geometry and asphalt pavement
  • New signal equipment, lighting, and drainage facilities
  • Less area required to construct

• Challenges
  • Signals require on-going maintenance
  • Does not reduce speeding along corridor
  • Less safe for pedestrians than roundabouts
Broadmoor Blvd Intersection Alternative 3
Dual Lane Roundabout

• **Benefits**
  • Upgraded intersection geometry and concrete pavement
  • New lighting and drainage facilities
  • Safe pedestrian crossings and Rapid Flashing Beacons
  • Reduction in speed for all vehicular traffic
  • Improved traffic operations
  • Decreased vehicular crash and mortality rates than signalized intersection
  • Opportunities for landscaping

• **Challenges**
  • More area (ROW) required to construct
  • More challenging to construct
  • More up-front costs
  • Learning curve for navigating geometry
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Conflict Points

Roundabout
- 8 Vehicle conflicts
- 8 Pedestrian conflicts

Intersection
- 32 Vehicle conflicts
- 24 Pedestrian conflicts
### Evaluation Summary – Broadmoor Blvd. Intersection

<table>
<thead>
<tr>
<th>PRIMARY EVALUATION FACTOR</th>
<th>Intersection Alternative No. 1: No Build</th>
<th>Broadmoor Blvd. Intersection Alternative 2 Signalized Intersection</th>
<th>Broadmoor Blvd. Intersection Alternative 3 Dual-Lane Roundabout</th>
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</thead>
<tbody>
<tr>
<td>SAFETY</td>
<td>● No Safety Benefits</td>
<td>● Increased Sight Distance and geometry at intersections.</td>
<td>● Controlled and reduced speeds at intersection and within corridor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● New Left Turn Lanes</td>
<td>● Roundabout geometry promotes increased safety.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● New signals and pedestrian crossings at intersections.</td>
<td>● Pedestrian crossings and ADA curb ramps</td>
</tr>
<tr>
<td>ROW REQUIREMENTS</td>
<td>● No Right-of-way Impacts</td>
<td>● 0.40 AC. Required.</td>
<td>● 1.40 AC. Required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Less ROW required than Alternative B.</td>
<td>● More ROW required than Alternative A.</td>
</tr>
<tr>
<td>CONSTRUCTABILITY</td>
<td>● No Construction Required</td>
<td>● Can construct intersection with temporary signal span and detours.</td>
<td>● May need to close intersection altogether due to complex geometry.</td>
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<tr>
<td></td>
<td></td>
<td>● Less difficult to construct.</td>
<td>● More difficult to construct.</td>
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<tr>
<td>CONSTRUCTION COSTS</td>
<td>● No Construction Costs</td>
<td>● $1.75M for Intersection Costs include Roadway, Curb, sidewalk, lighting, and signals</td>
<td>● $1.95M for Intersection Costs include Roadway, Curb, sidewalk, lighting, and rapid flashing beacons</td>
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<td></td>
<td>● Less Costly than Alternative B.</td>
<td>● More costly than Alternative A.</td>
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<td>Recommend to Move into Phase I-B</td>
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<tr>
<td></td>
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<td>22</td>
<td>29</td>
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</tbody>
</table>

**EVALUATION SCORE**

- Intersection Alternative No. 1: No Build
- Broadmoor Blvd. Intersection Alternative 2 Signalized Intersection
- Broadmoor Blvd. Intersection Alternative 3 Dual-Lane Roundabout
Loma Colorado Blvd Intersection
Alternative 2 – Signalized Intersection

**Benefits**
- Upgraded intersection geometry and asphalt pavement
- New signal equipment, lighting, and drainage facilities
- Less area required to construct

**Challenges**
- Signals require on-going maintenance
- Does not reduce speeding along corridor
- Less safe for pedestrians than roundabouts
Loma Colorado Blvd Intersection
Alternative 3:
Dual-Lane Roundabout

**Benefits**
- Upgraded intersection geometry and concrete pavement
- New lighting and drainage facilities
- Safe pedestrian crossings and Rapid Flashing Beacons
- Reduction in speed for all vehicular traffic
- Improved traffic operations
- Decreased vehicular crash and mortality rates than signalized intersection
- Opportunities for landscaping

**Challenges**
- More area (ROW) required to construct
- More challenging to construct
- More up-front costs
- Learning curve for navigating geometry
# Evaluation Summary – Loma Colorado Blvd. Intersection

<table>
<thead>
<tr>
<th>PRIMARY EVALUATION FACTOR</th>
<th>Intersection Alternative No. 1: No Build</th>
<th>Loma Colorado Blvd. Intersection Alternative 2 Signalized Intersection</th>
<th>Loma Colorado Blvd. Intersection Alternative 3 Dual-Lane Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFETY</td>
<td>● No Safety Benefits</td>
<td>● Increased Sight Distance and geometry at intersections</td>
<td>● Controlled and reduced speeds at intersection and within corridor.</td>
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<tr>
<td></td>
<td></td>
<td>● New Left Turn Lanes</td>
<td>● Roundabout geometry promotes increased safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● New signals and pedestrian crossings at intersections</td>
<td>● Pedestrian crossings and ADA curb ramps</td>
</tr>
<tr>
<td>ROW REQUIREMENTS</td>
<td>● No Right-of-way impacts</td>
<td>● 1.75 AC. Required.</td>
<td>● 2.51 AC. Required.</td>
</tr>
<tr>
<td></td>
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<td>● Less ROW required than Alternative B.</td>
<td>● More ROW required than Alternative A.</td>
</tr>
<tr>
<td>CONSTRUCTABILITY</td>
<td>● No Construction Required</td>
<td>● Can construct intersection with temporary signal span and detours.</td>
<td>● May need to close intersection altogether due to complex geometry.</td>
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<td>● Less difficult to construct.</td>
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<tr>
<td>CONSTRUCTION COSTS</td>
<td>● No Construction Costs</td>
<td>● $1.75M for Intersection Costs include Roadway, Curb, sidewalk,</td>
<td>● $1.95M for Intersection Costs include Roadway, Curb, sidewalk, lighting, and rapid flashes</td>
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<tr>
<td></td>
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<td>lighting, and signals</td>
<td>▪ More costly than Alternative A.</td>
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<tr>
<td>EVALUATION SCORE</td>
<td>Do Not Advance</td>
<td>22 Recommend to Move Into Phase I-B</td>
<td>28 Recommend to Move Into Phase I-B</td>
</tr>
</tbody>
</table>

**Recommended Action:**

- **Alternative 2:** Signalized Intersection
  - Move into Phase I-B

**Ratings:**
- **Safety:** 0
- **Row Requirements:** 5
- **Constructability:** 4
- **Construction Costs:** 4
- **Evaluation Score:** 22

**Note:** The evaluation criteria and scores are based on specific parameters related to safety, right-of-way requirements, constructability, and construction costs, aiming to improve the lives of the community.
Kim Rd Intersection Alternative 2
Conventional Intersection

**Benefits**
- Upgraded intersection geometry and pavement
- Upgraded lighting and drainage facilities
- Less area required to construct
- New turning lanes in median

**Challenges**
- Signals require on-going maintenance
- Does not reduce vehicular speeds at intersection
- Less safety for pedestrians than roundabouts

Recommended to move into Phase I-B
Kim Rd Intersection Alternative 3
Single Lane Roundabout

**Benefits**
- Upgraded intersection geometry and concrete pavement
- New lighting and drainage facilities
- Safe pedestrian crossings and Rapid Flashing Beacons
- Reduction in speed for all vehicular traffic
- Improved traffic operations
- Decreased vehicular crash and mortality rates than stop-controlled intersection
- Opportunities for landscaping

**Challenges**
- More area (ROW) required to construct
- More challenging to construct
- More up-front costs
- Learning curve for navigating geometry
# Evaluation Summary – Kim Rd. Intersection

<table>
<thead>
<tr>
<th></th>
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</thead>
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<td></td>
<td></td>
<td>● New signals and pedestrian crossings at intersections</td>
<td>● Pedestrian crossings and ADA curb ramps</td>
</tr>
<tr>
<td>ROW REQUIREMENTS</td>
<td>● No Right-of-way Impacts</td>
<td>● 0.00 AC. Required.</td>
<td>● 0.24 AC. Required.</td>
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<tr>
<td></td>
<td></td>
<td>● Less ROW required than Alternative B.</td>
<td>● More ROW required than Alternative A.</td>
</tr>
<tr>
<td>CONSTRUCTABILITY</td>
<td>● No Construction Required</td>
<td>● Can construct intersection with temporary signal span and detours.</td>
<td>● May need to close intersection altogether due to complex geometry.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Less difficult to construct.</td>
<td>● More difficult to construct.</td>
</tr>
<tr>
<td>CONSTRUCTION COSTS</td>
<td>● No Construction Costs</td>
<td>● $1.30M for Intersection Construction includes Roadway, Curb, sidewalk, lighting, and signals</td>
<td>● $1.7M for Intersection Costs include Roadway, Curb, sidewalk, lighting, and rapid flashing beacons</td>
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<tr>
<td></td>
<td></td>
<td>● Less costly than Alternative B.</td>
<td>● More costly than Alternative A.</td>
</tr>
<tr>
<td>EVALUATION SCORE</td>
<td>Do Not Advance</td>
<td>Recommend to Move Into Phase I-B</td>
<td>Recommend to Move Into Phase I-B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>30</td>
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MEETING REMINDER

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NMDOT State Access Management Manual (SAMM)

- “The SAMM encourages few direct access points, greater separation of driveways, and better driveway design and location are the basic elements of access management.”

- Conflicts are reduced along the highway, thereby reducing the accident potential, which results in a safer highway environment.

- Traffic flow is smoother which maintains desired travel speeds resulting in short and safer travel.

- Uniform standards are established which ensures equal application of access requirements for property owners.
Property Access Alternative 2
Adjacent Access Road

• **Benefits**
  • Access provided in accordance with the NMDOT State Access Management Manual (SAMM)
  • Access to all properties adjacent to Idalia.

• **Challenges**
  • More area (ROW) required
  • More challenging to construct
  • More costly to construct
  • 14.62 AC required for acquisition.

Recommended to move into Phase I-B 15/30
Property Access Alternative 2
Adjacent Access Road

• Benefits
  • Access provided in accordance with the NMDOT State Access Management Manual (SAMM)
  • Access to all properties adjacent to Idalia.

• Challenges
  • More area (ROW) required
  • More challenging to construct
  • More costly to construct
  • 14.62 AC required for acquisition.
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Property Access Alternative 3
Offset Access Road

• Benefits
  • Access provided in accordance with the NMDOT State Access Management Manual (SAMM)
  • Access to all properties adjacent to Idalia.
  • Less area (ROW) required to construct
  • Less costly to construct

• Challenges
  • 11.64 AC required for acquisition.
Property Access Alternative 3
Offset Access Road

**Benefits**
- Access provided in accordance with the NMDOT State Access Management Manual (SAMM)
- Access to all properties adjacent to Idalia.
- Less area (ROW) required to construct
- Less costly to construct

**Challenges**
- 11.64 AC required for acquisition.
### Evaluation Summary – Property Access

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfies Purpose &amp; Need</strong></td>
<td>● No improvements to Existing Access</td>
<td>● New graded access road for future city street.</td>
<td>● New graded access road for future city street.</td>
</tr>
<tr>
<td></td>
<td>● Properties will be landlocked and unusable</td>
<td>● Alternative will improve access to adjacent properties.</td>
<td>● Alternative will improve access to adjacent properties</td>
</tr>
<tr>
<td><strong>Row Requirements</strong></td>
<td>● No Right-of-way Impacts.</td>
<td>● 14.62 AC. Required.</td>
<td>● 11.64 AC. Required.</td>
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<tr>
<td></td>
<td>● Does not provide access to properties.</td>
<td>● 20% more ROW is required than Alternative 3.</td>
<td>● 20% less ROW required than Alternative 2.</td>
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<td><strong>Construction Costs</strong></td>
<td>● No Construction Costs required.</td>
<td>● Access Road will impact less property owners.</td>
<td>● Access Road will impact more property owners.</td>
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</table>
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

End of Project Access:

Property Access Alternatives

- **Alternative 1:** No-Build
- **Alternative 2:** Lower Road and maintain existing driveway grades
- **Alternative 3:** Build 2-way Frontage Road from Idalia
- **Alternative 4:** Build 1-way Frontage Road from Idalia
- **Alternative 5:** Provide access to back of properties

Recommend Alternatives 2, 3, and 4 to move into Phase I-B
### Evaluation Summary – End of Project Property Access

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfies Purpose &amp; Need</td>
<td>● No Improvements to Existing Access: Some Properties will be Landlocked and unusable</td>
<td>● Lower Road will flatten slopes for existing driveways for existing homes. ● Access to existing homes will not change ● Left-in and Left-out turning movement for existing driveways may be closed due to median curb for safety. ● Combine with any other Alternatives.</td>
<td>● 2-way frontage road for residents will provide access directly in front of their undeveloped properties. ● Consolidating the access for the property owners will limit number of potential conflict points and increase safety. ● Combine with Alternative 2.</td>
<td>● 2-way frontage road for residents will provide access directly in front of their undeveloped properties. ● Consolidating the access for the property owners will limit number of potential conflict points and increase safety. ● Combine with Alternative 2.</td>
<td>● Provide Access Road behind undeveloped properties ● Combine with Alternative 2.</td>
</tr>
<tr>
<td>ROW Requirements</td>
<td>0 AC. Required. ● Temporary Construction Easements may be required.</td>
<td>0.059 AC. Required. ● Frontage road will require 30’ of ROW ● More ROW required than Alternative 4 but less than Alternative 5.</td>
<td>0.44 AC. Required. ● Frontage road will require 30’ of ROW ● Less ROW required than Alternative 3 and Alternative 5.</td>
<td>1.25 AC. Required. ● Most ROW required of all Alternatives.</td>
<td></td>
</tr>
<tr>
<td>Construction Costs</td>
<td>N/A</td>
<td>● $50K ● Costs include drivepad and earthwork costs only.</td>
<td>● $250K ● Costs include ROW Estimated costs, pavement, and earthwork ● More costly than Alternative 4 but less than Alternative 5.</td>
<td>● $205K ● Costs include ROW Estimated costs, pavement, and earthwork ● Less costly than Alternative 4 and Alternative 5.</td>
<td>● $810K ● Costs include ROW Estimated costs only ● More costly than all other Alternatives due to terrain and needed ROW.</td>
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<td>Evaluation Score</td>
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<td>Recommend to Move Into Phase I-B</td>
<td>Recommend to Move Into Phase I-B</td>
<td>Recommend to Move Into Phase I-B</td>
<td>Do Not Advance</td>
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</table>

**EVALUATION SCORE:**

- Corridor Access Alternative No. 1: No Build: 5
- Corridor Access Alternative 2: Adjacent Access to Exit. ROW: 26
- Corridor Access Alternative 3: Access Behind Properties: 24
- Corridor Access Alternative 3: Access Behind Properties: 24
- Corridor Access Alternative 3: Access Behind Properties: 20

**Total Score:**

- Corridor Access Alternative No. 1: No Build: 5
- Corridor Access Alternative 2: Adjacent Access to Exit. ROW: 26
- Corridor Access Alternative 3: Access Behind Properties: 24
- Corridor Access Alternative 3: Access Behind Properties: 24
- Corridor Access Alternative 3: Access Behind Properties: 20

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IDALIA ROAD PHASE I-A/B STUDY
PHASE 1-A INITIAL ALTERNATIVES ANALYSIS

Drainage Alternative – No Build

1. Drainage Alternative – No Build
2. Do Not Advance into Phase I-B

Legend
- Culvert

Map showing drainage alternatives and locations:
- 36" CMP
- 3-60" CMP
- 4-60" CMP
- 2-30" CMP
- La Barranca Arroyo By Others 4-6"X7" Arch CMP
- 3-6' X 8' Concrete Box Culvert

1. IDALIA RD.
2. NORTHERN BLVD.
3. LOMA COLORADO BLVD.
4. SANDALWOOD BLVD.
5. GUNNIVERE ST.
Northern Boulevard Drainage Alternative A

**Benefits:**
- Roadway drainage will be contained in storm drain under road.

**Challenges:**
- Available room for additional drainage in Northern Blvd. storm drain must be confirmed
- Coordination with design team working on Northern Boulevard storm drain

Recommended to move into Phase I-B
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Broadmoor Drainage Alternative A
• Benefits:
  • Drainage will be contained in storm drain within road.
  • Will not require future demolition. Complies with master drainage plan for surrounding area.
• Challenges:
  • Increased cost.

Broadmoor Drainage Alternative B
• Benefits:
  • New structures designed for appropriate flow.
  • Complies with master drainage plan for surrounding area.
• Challenges:
  • Increased cost and Footprint.
  • Only an interim solution.

Broadmoor Drainage Alternative C
• Benefits:
  • Significantly Reduced Cost.
• Challenges:
  • Only a temporary solution, that will at some point require storm drain construction as noted in Alternative A.

Alt. A Recommended to move into Phase I-B
Alt. C Recommended to move into Phase I-B
# Evaluation Summary – Broadmoor Blvd. Drainage Alternatives

<table>
<thead>
<tr>
<th>Evaluation Factor</th>
<th>No Build Drainage Alternative</th>
<th>Idalia Road at Broadmoor Boulevard Drainage Alternative A</th>
<th>Idalia Road at Broadmoor Boulevard Drainage Alternative B</th>
<th>Idalia Road at Broadmoor Boulevard Drainage Alternative C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfies Purpose &amp; Need</strong></td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>• Drainage deficiencies would remain.</td>
<td></td>
<td>• Storm drain facilities cross Idalia Road and extend along Broadmoor to Northern Boulevard stub-out.</td>
<td>• Storm drain facilities cross Idalia Road and outlet to a ditch extending along Broadmoor to Northern Boulevard stub-out.</td>
<td>• Existing 30-inch diameter culvert - replaced and more north (near gas line)</td>
</tr>
<tr>
<td>• Storm drain available for development east of Broadmoor</td>
<td></td>
<td>• Storm drain available for development east of Broadmoor</td>
<td></td>
<td>• Storm drain available for development east of Broadmoor</td>
</tr>
<tr>
<td>• Runoff contained in pipe, reducing erosion potential along Broadmoor.</td>
<td></td>
<td>• Runoff contained in pipe, reducing erosion potential along Broadmoor.</td>
<td></td>
<td>• intercept runoff that would ultimately need to be removed.</td>
</tr>
<tr>
<td>• Culvert at Idalia is removed.</td>
<td></td>
<td></td>
<td></td>
<td>• Drainage facilities are not available for development east of Broadmoor.</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>• Storm Drains provide reduced driving hazard.</td>
<td></td>
<td>• Pipe outlet, ditch, and inlet structure are potential hazards to drivers.</td>
<td></td>
<td>• Offside runoff and sediment would be collected prior to entering the street.</td>
</tr>
<tr>
<td>• Storm Drains provide increased flood protection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ROW Requirements</strong></td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>• Within the right of way.</td>
<td></td>
<td>• Within the right of way.</td>
<td></td>
<td>• ROW/required north of proposed roadway.</td>
</tr>
<tr>
<td><strong>Construction Costs</strong></td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>• Costs include drainage items for this alternative only</td>
<td></td>
<td>• Costs include drainage items for this alternative only</td>
<td></td>
<td>• Costs include drainage items for this alternative only</td>
</tr>
<tr>
<td>• Ultimate solution – highest cost, but no interim construction to be removed.</td>
<td></td>
<td>• Ultimate solution – highest cost, but no interim construction to be removed.</td>
<td></td>
<td>• Ultimate solution – highest cost, but no interim construction to be removed.</td>
</tr>
<tr>
<td><strong>Evaluation Score</strong></td>
<td>13</td>
<td>27</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>No Build Alternative does not move forward</td>
<td>Recommended to move into Phase I-B</td>
<td>Recommended to move into Phase I-B</td>
<td>Recommended to move into Phase I-B</td>
<td></td>
</tr>
</tbody>
</table>
Loma Colorado Drainage Alternative A

- **Benefits:**
  - Drainage will be contained in the storm drain within the road.

- **Challenges:**
  - Increased storm drain size under road.

Loma Colorado Drainage Alternative B

- **Benefits:**
  - Drainage will be contained within a pipe and removed from public space.
  - Reduced pipe size under roadway.

**Challenges:**
- Increased cost of placing two pipes instead of one.
Loma Colorado Drainage Alternative C

- **Benefits:**
  - Reduced pipe size under roadway.

- **Challenges:**
  - Cost of materials.
  - Large quantities of rock lining required to stabilize channel.
  - An open channel will remain next to the school.

Recommended to move into Phase I-B
**IDALIA ROAD PHASE I-A/B STUDY**

**PHASE I-A INITIAL ALTERNATIVES ANALYSIS**

**Evaluation Summary – Loma Colorado Blvd. Drainage Alternatives**

<table>
<thead>
<tr>
<th>EVALUATION FACTOR</th>
<th>No Build Drainage Alternative</th>
<th>Loma Colorado / Idalia Road Drainage Alternative A</th>
<th>Loma Colorado / Idalia Road Drainage Alternative B</th>
<th>Loma Colorado / Idalia Road Drainage Alternative C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATISFIES PURPOSE &amp; NEED</td>
<td>The existing channels along the roadway would remain and worsen.</td>
<td>The 2-inch storm drain in Idalia from Loma Colorado to Lomitas Negras Tributary would be utilized.</td>
<td>The 6-inch storm drain in Idalia Road / 66-inch storm drain parallel to Idalia on the south side of the intersection would be utilized.</td>
<td>The 6-inch storm drain in Idalia Road to drain roadway runoff extending from Loma Colorado to Lomitas Negras Tributary would be utilized.</td>
</tr>
<tr>
<td>SAFETY</td>
<td>The existing channels adjacent to Idalia would worsen on the roadway.</td>
<td>The severe erosion adjacent to Idalia is creating a significant safety hazard.</td>
<td>The severe erosion adjacent to Idalia is threatening to erode on the roadway.</td>
<td>The severe erosion adjacent to Idalia is threatening to erode on the roadway.</td>
</tr>
<tr>
<td>ROW REQUIREMENTS</td>
<td>Within existing ROW or easement</td>
<td>May need coordination or easement from Rio Rancho Middle School.</td>
<td>May need easement from Rio Rancho Middle School.</td>
<td>May need easement from Rio Rancho Middle School.</td>
</tr>
<tr>
<td>CONSTRUCTION COSTS</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
</tr>
<tr>
<td>EVALUATION SCORE</td>
<td>No Build Alternative does not move forward</td>
<td>Recommended to move into Phase I-B</td>
<td>Recommended to move into Phase I-B</td>
<td>Recommended to move into Phase I-B</td>
</tr>
</tbody>
</table>

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IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Kim Rd. Drainage Alternative A

- Benefits:
  - Drainage will continue to cross under Idalia and drain to its existing location.

- Challenges:
  - Crossing water may require additional grading east of intersection.

Kim Rd. Drainage Alternative B

- Benefits:
  - Drainage will be contained in storm drain within the road.

- Challenges:
  - Increased storm drain size under road.
  - Increased cost due to larger pipe sizes.

Recommended to move into Phase I-B
## Evaluation Summary – Kim Rd. Drainage Alternatives

<table>
<thead>
<tr>
<th>Evaluation Factor</th>
<th>No Build Drainage Alternative</th>
<th>Kim Road Drainage Alternative A</th>
<th>Kim Road Drainage Alternative B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SATISFIES PURPOSE &amp; NEED</strong></td>
<td>● Drainage deficiencies would remain. Scour channels along the roadway would remain and worsen. Large scour at major approaches would remain and worsen.</td>
<td>Idalia road runoff will be collected within a storm drain in the street (36-inch), ultimately draining east to La Barranca Arroyo. Existing culverts on each side of Kim Road will be removed and replaced. Median type inlets will be used on the upstream side to collect offsite runoff. Interim drainage solutions until regional facilities are installed. Offsite runoff will likely overlap Idalia road in very large storms. Drainage on Kim Road, south of Idalia, will continue as it currently does.</td>
<td>Idalia road runoff will be collected within a storm drain in the street, draining to La Barranca Arroyo. Offsite runoff from the north will be directed into (upgraded) 54-inch roadway storm drain conveying the stormwater to La Barranca Arroyo. Median type inlets will be used to collect offsite runoff. Drainage on Kim Road, south of Idalia, will continue as it currently does, but the contributing runoff from Idalia Road and the offsite to the north will be redirected to a storm drain.</td>
</tr>
<tr>
<td><strong>SAFETY</strong></td>
<td>As the offsite areas developed, drainage facilities would be inadequate and runoff would increase, with the potential for flooding. Existing scour channels adjacent to Idalia would approach on the roadway.</td>
<td>Proposed solution will reduce ponding at the intersection, greatly improving safety.</td>
<td>Proposed solution will reduce ponding at the intersection, greatly improving safety. Runoff to Kim Road will be reduced, thus lessening flooding and improving safety.</td>
</tr>
<tr>
<td><strong>ROW REQUIREMENTS</strong></td>
<td>5</td>
<td>Additional ROW may be needed on Kim Road.</td>
<td>No Additional ROW needed.</td>
</tr>
<tr>
<td><strong>CONSTRUCTION COSTS</strong></td>
<td>5</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
<td>Costs include drainage items for this alternative only for comparison purposes.</td>
</tr>
<tr>
<td><strong>EVALUATION SCORE</strong></td>
<td>No Build Alternative does not move forward</td>
<td>Recommended to move into Phase I-B</td>
<td>Recommended to move into Phase I-B</td>
</tr>
<tr>
<td>Score</td>
<td>13</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>
Iris Road Drainage Alternatives A
• Benefits:
  • The roadway drainage for adjacent homeowners will be improved and will no longer flow down homeowners’ driveways.
• Challenges:
  • Storms in excess of the design storm may still have flows entering homeowner property.

Iris Road Drainage Alternatives B
• Benefits:
  • Frontage road drainage will be contained in storm drain.
• Challenges:
  • The additional inlet will require maintenance, especially before development of the surrounding area.

Iris Road Drainage Alternatives C
• Benefits:
  • Utilizing the existing channel will reduce construction cost.
• Challenges:
  • Structures may need to be replaced in the future as the area becomes more developed.
# IDALIA ROAD PHASE I-A/B STUDY

## PHASE I-A INITIAL ALTERNATIVES ANALYSIS

### Evaluation Summary – End of Project Drainage Alternatives

<table>
<thead>
<tr>
<th>EVALUATION FACTOR</th>
<th>No Build Braided Alternatives</th>
<th>Althea Court to Iris Road Braided Alternatives A</th>
<th>Althea Court to Iris Road Drainage Alternative B</th>
<th>Althea Court to Iris Road Drainage Alternative C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATISFACTION PURPOSE &amp; NEED</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Safety</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>ROW REQUIREMENTS</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>CONSTRUCTION COSTS</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EVALUATION SCORE</td>
<td>19</td>
<td>22</td>
<td>26</td>
<td>18</td>
</tr>
</tbody>
</table>

- Drainage ditches would remain.
- Pouring channels along the roadway would remain and worsen.
- Large underground arrows would remain and worsen.
- Althea road runoff will drain west onto Idalia and water blocks at the residential driveways to prevent road runoff from spilling into the private property.
- Driveways to homes near 690 should be steeper.
- Idalia and storm drain would be constructed to drain to existing arrow at approximate station 157+50 via a round-a-round.
- Althea & provides a Frontage Road for the private property approach.
- 2000 ft west of Iris. The Frontage Road would be much lower than Idalia Road and a retaining wall. Frontage Road would be cross-sloped toward the retaining wall and would slope to the west.
- At the west end of the Frontage Road, runoff would drain onto a storm drain inlet and then to roadway storm drain.
- Runoff from the private property south of Idalia drains south to the new access road collecting in a ditch, apron half draining to the west and half to the east.
- Idalia road drainage will remain within the roadway prism.
- At the west end of the Access Road, the stormwater would drain into a small existing stream tributary to the main arm via a riser round-a-round.
- Sediment will drift across the Access Road from the northern ditch.

- No additional ROW expected.
- ROW would be required for Frontage Road.
- ROW would need to be extended.
- In addition to what's required for the roadway, ROW will be required for the ditch. - The ditch slopes on the south side will extend quite a ways back onto private property.

- Costs include drainage items for this alternative only for comparison purposes.
- Costs include drainage items for this alternative only for comparison purposes.
- Costs include drainage items for this alternative only for comparison purposes.

- Recommended to move into Phase 1-B
- Recommended to move into Phase 1-B
- Communication

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Environmental Studies

- National Environmental Policy Act (NEPA)
- NMDOT Location Study Procedures
- Field studies and data collection
- Public involvement
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Key Environmental Studies
• Physical Environment:
  • Geology, Soils, Water, Air
• Biological Environment:
  • Vegetation, Wildlife, and Endangered Species
• Cultural Resources:
  • Archaeological Sites, Historic Building
• Human Environment:
  • Socioeconomics, Environmental Justice, Local Community

Other Environmental Considerations
• Land Use
• Noise
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

Current Study Schedule

- Existing Conditions Analysis – December 2021
  - Public Meeting No. 1 (December 16th, 2021)
- Phase I-A (Initial Screening of Alternatives) – Spring 2022
  - Public Meeting No. 2 (May 4th, 2022)
- Phase I-B (Detailed Evaluation of Alternatives and Recommendations) – Summer 2022
- Final Phase I-A/B Report – Submit Summer 2022
- Preliminary Design – Begin Fall 2022
  - Public Meeting No. 3 (TBD - Fall 2022)
IDALIA ROAD PHASE I-A/B STUDY
PHASE I-A INITIAL ALTERNATIVES ANALYSIS

• Next Steps

- Phase A: Initial Evaluation of Alternatives
- Phase B: Detailed Evaluation of Alternatives
- Phase C: Environmental Documentation
- Phase D: Preliminary Design

Public Involvement

Final Design

Summer to Fall 2022
If you have a question about the project, please raise your virtual hand and the moderator will call on you.

- To raise your hand: Go to the reactions button at the bottom of the screen and select "Raise Hand"

If you feel more comfortable typing your question, our moderator will be fielding questions from the discussion window.

If you have any additional questions after the meeting, please use the contact information on this slide!